

REMARKS

This application has been carefully reviewed in light of the Office Action dated September 12, 2007 ("Office Action"). Claims 1-5, 9, 10, 14-18, 22, 23 and 27-31 are pending in the application. The Examiner rejects Claims 1-5, 9, 10, 14-18, 22, 23 and 27-31. To advance prosecution of this case, Applicant amends Claims 1, 9, 14, 22, and 31. Applicant does not admit that any amendments are necessary due to any prior art or any of the Examiner's rejections. Applicant traverses the rejections and respectfully requests reconsideration and allowance of all pending claims.

Summary of Telephone Interview

Applicant's attorney, Justin N. Stewart, conducted a telephone interview with Examiner Pannala on January 8, 2008. Pursuant to M.P.E.P. § 713.04, Applicant submits this summary of the telephone interview to record Applicant's understanding of the substance of the interview. If Applicant's understanding is inaccurate, notice of such is appreciated.

Attorney for Applicant thanks the Examiner for the courtesy of the telephone interview. During the interview, the Examiner and Applicant's attorney discussed "providing one or more results from the second list to a user" as recited in Claim 1. In addition, the Examiner and Applicant's attorney discussed "collecting, into a first list, results associated with the one or more negative terms, and collecting, into a second list, results associated with the one or more positive terms while omitting from the second list any results that are in the first list" as recited in Claim 1. The Examiner and Applicant's attorney further discussed the rejections under 35 U.S.C. §§ 101 and 112. Although no agreement was reached, the Examiner agreed to consider Applicant's arguments and amendments, articulated in this Response, with respect to the rejections.

Section 112 - Second Paragraph

"a first list...and...a second list"

The Office Action rejects Claims 1, 9, 14, 22, and 31 by alleging that these claims are indefinite. In particular, the Examiner points to the portion of Claim 1 that recites:

...the determination comprises:

collecting, into a first list, results associated with the one or more negative terms, and

collecting, into a second list, results associated with the one or more positive terms while omitting from the second list any results that are in the first list....

The Examiner then quotes a portion of the Specification that states:

It should be noted that a database that supports SQL may not supply a subtraction operator. In such instances a problem in processing the sum of terms as described above may arise. In order to process (evaluate) a subtraction, the method according to the present application: collects all positive terms in a list; collects all negative terms into another list; and then subtracts the positive term list and the negative term list whilst ignoring duplicates.

Office Action; pp. 3-4 (quoting *Specification*; p. 9, l. 27 –p. 10, l. 2). Applicant traverses this rejection. The Office Action does not explain how or why the above portion of the Specification renders Claim 1 indefinite. Indeed, the cited elements of amended Claim 1 are clear and are sufficiently supported by the Specification. For example, a portion of the Specification, ignored in the Office Action, states:

An alternative to the subtraction process noted above, is to collect all negative terms in a list, and in the process of collecting all positive terms in another list, only keep the terms that are not in the negative list.

Specification; p. 10, ll. 3-5.¹ Thus, the Specification describes an alternative to subtraction. At least this portion of the Specification supports “collecting, into a first list, results associated with the one or more negative terms, and collecting, into a second list, results associated with the one or more positive terms while omitting from the second list any results that are in the first list” as recited in amended Claim 1. Because amended Claim 1 is definite and adequately supported by the Specification, the rejection should be withdrawn.

“providing one or more results from the second list to a user”

In addition to the portion of amended Claim 1 discussed above, the Office Action alleges that the Specification “does not teach specifically the claiming limitation ‘providing one or more results from the second list to a user.’” *Office Action*; p. 4. Applicant traverses

¹ In citing this portion of the Specification, Applicant does not intend to limit the claims to any particular embodiment. This citation merely shows that the disputed portion of Claim 1 is supported by at least a portion of the Specification.

this rejection because the Specification sufficiently supports “providing one or more results from the second list to a user” as recited in amended Claim 1. For example, the Specification describes providing results from a database search to a user. *See, e.g., Specification*; p. 1, ll. 15-22. In addition, the Specification describes results from a second list. *See, e.g., Specification*; p. 10, ll. 3-6 (describing a “positive list”).² Therefore, the Specification adequately supports “providing one or more results from the second list to a user” as recited in amended Claim 1. Because amended Claim 1 is definite and adequately supported by the Specification, the rejection should be withdrawn. For at least the foregoing reasons, Applicant respectfully requests reconsideration and allowance of amended Claim 1.

In rejecting Claims 9, 14, 22, and 31 under Section 112, second paragraph, the Office Action employs the same rationale used to reject Claim 1. Accordingly, for reasons analogous to those stated above with respect to amended Claim 1, Applicant respectfully requests reconsideration and allowance of amended Claims 9, 14, 22, and 31.

Section 112 - First Paragraph

The Office Action rejects Claims 1, 9, 14, 22, and 31 under Section 112, first paragraph. The Examiner argues that these claims do not comply with the enablement requirement. In particular, the Examiner contends that “providing one or more results from the second list to a user,” as recited in Claim 1, is “not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.” *Office Action*; p. 3. Applicant traverses this rejection.

“The test of enablement is whether one reasonably skilled in the art could make or use the invention from the disclosures in the patent coupled with the information known in the art without undue experimentation.” M.P.E.P. § 2164.01 citing *United States v. Teletronics, Inc.*, 857 F.2d 778, 785 (Fed. Cir. 1988). There is no requirement that the specification provide concrete examples or illustrations of claimed steps. In fact, “[c]ompliance with the enablement requirement of 35 U.S.C. § 112, first paragraph, does not turn on whether an example is disclosed.” M.P.E.P. § 2164.02. All that is required is that the “information contained in the disclosure of an application must be sufficient to inform those skilled in the

² In citing these portions of the Specification, Applicant does not intend to limit the claims to any particular embodiment. These citations merely show that the disputed portion of Claim 1 is supported by at least a portion of the Specification.

relevant art how to both make and use the claimed invention. Detailed procedures for making and using the invention may not be necessary if the description is sufficient to permit those skilled in the art to make and use the invention.” M.P.E.P. § 2164.

The Specification provides sufficient information and detail to enable those skilled in the art at the time of invention to make and use the claimed invention. In the Office Action, the Examiner points to the portion of Claim 1 that recites “providing one or more results from the second list to a user.” As explained above, this aspect of Claim 1 is sufficiently described in the Specification. For example, the Specification describes providing results from a database search to a user. *See, e.g., Specification*; p. 1, ll. 15-22. In addition, the Specification describes results from a second list. *See, e.g., Specification*; p. 10, ll. 3-6 (describing a “positive list”).³ Therefore, the Specification adequately supports “providing one or more results from the second list to a user” as recited in amended Claim 1. Accordingly, the Specification is sufficient to inform those skilled in the relevant art how to both make and use the claimed invention. Therefore, the rejection is improper and Applicant respectfully requests reconsideration and allowance of amended Claim 1.

In rejecting Claims 9, 14, 22, and 31 under Section 112, first paragraph, the Office Action employs the same rationale used to reject Claim 1. Accordingly, for reasons analogous to those stated above with respect to amended Claim 1, Applicant respectfully requests reconsideration and allowance of amended Claims 9, 14, 22, and 31.

Section 101 Rejections

The Office Action rejects Claims 1-5, 9-10, 14-18, 22-23, and 27-31 under 35 U.S.C. § 101. The Office Action asserts that these claims do not “fall within a statutory category.” *Office Action*; p. 5. Applicant respectfully traverses this rejection.

“When an unpatentable mental process is combined with a machine, the combination may produce patentable subject matter.” *In re Comiskey*, 499 F.3d 1365, 1379 (Fed. Cir. 2007). In *Comiskey*, the Examiner rejected all of the claims in an application directed to a system for mandatory arbitration. *Id.* at 1368. The Federal Circuit, however, observed that some of the claims (i.e., claims 17 and 46) recited the use of “modules” (e.g., a “registration module for enrolling”, “an arbitration module for incorporating arbitration language”, etc.).

³ In citing these portions of the Specification, Applicant does not intend to limit the claims to any particular embodiment. These citations merely show that the disputed portion of Claim 1 is supported by at least a portion of the Specification.

Id. at 1379. Accordingly, the Federal Circuit concluded that these “claims, under the broadest reasonable interpretation, could require the use of a computer.” *Id.* Based on this conclusion, the Federal Circuit held that claims 17 and 46, in “combining the use of machines with a mental process, claim patentable subject matter.” *Id.* at 1380. Therefore, in *Comiskey*, the Federal Circuit reversed the rejection of claims 17 and 46 under 35 U.S.C. § 101. *Id.* at 1381.

This aspect of *Comiskey* is consistent with other Federal Circuit decisions which held that claims combining a mental process with a machine are patentable. *See, e.g., State St. Bank & Trust Co. v. Signature Fin. Group, Inc.*, 149 F.3d 1368, 1371 (Fed. Cir. 1998) (holding patentable a “system that allows an administrator to monitor and record the financial information flow and make all calculations necessary for maintaining a partner fund financial services configuration” where a “computer or equivalent device [wa]s a virtual necessity to perform the task”).

Like claims 17 and 46 in *Comiskey*, the pending claims in the present application recite a machine or the use of a machine as part of the claimed invention. For example, amended Claim 1 recites that “the plurality of results are determined by a processor.” As another example, amended Claim 9 recites a “system...comprising...a processor that is communicatively coupled to the database and that processes a service query by...obtaining a sum of terms”, “evaluating the sum of terms as a plurality of SQL instructions”, and “determining a plurality of results.” Indeed, each of the independent claims in the present application recite “a processor.” Therefore, under the Federal Circuit’s decision in *Comiskey*, Claims 1, 9, 14, 22, 31 and their respective dependents are directed to statutory subject matter. For at least these reasons, Applicant respectfully requests reconsideration and allowance of Claims 1-5, 9-10, 14-18, 22-23, and 27-31.

Section 103 Rejections

The Examiner rejects Claims 1-5, 9-10, 14-18, 22-23, and 27-31 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,356,892 B1 issued to Corn, et al. (“*Corn*”), in view of U.S. Patent No. 6,112,198 issued to Lohman, et al. (“*Lohman*”), and in view of U.S. Patent No. 5,412,804 issued to Krishna (“*Krishna*”). Applicant respectfully traverses this rejection.

In his previous Response filed on June 28, 2007, Applicant argued that the cited references failed to teach, suggest, or disclose several aspects of the pending claims. In the Office Action, the Examiner did not respond to these arguments. *Office Action*; pp. 19-20. Accordingly, Applicant repeats these arguments below for the Examiner's consideration.

The cited references fail to support the rejection under Section 103 for several reasons. First, the cited references fail to teach, suggest, or disclose that the "determination comprises...collecting, into a first list, results associated with the one or more negative terms, and collecting, into a second list, results associated with the one or more positive terms" as recited in amended Claim 1. Second, the cited references fail to teach, suggest, or disclose "omitting from the second list any results that are in the first list" as recited in amended Claim 1. Third, the cited references fail to teach, suggest, or disclose "if the service query comprises a term having at least two NOT operators, deleting from the sum of terms a third-order term corresponding to the term having at least two NOT operators" as recited in Claim 31.

First, the cited references fail to teach, suggest, or disclose that the "determination comprises...collecting, into a first list, results associated with the one or more negative terms, and collecting, into a second list, results associated with the one or more positive terms" as recited in amended Claim 1. In the Office Action, the Examiner relies on *Corn* for this aspect of amended Claim 1. *Office Action*; pp. 6-7. *Corn* teaches a method for re-writing LDAP queries as SQL queries. *Corn*; abstract. The cited portion of *Corn* describes merging sets of EIDs into an SQL query. Col. 7, ll. 39-58. In particular, the cited portion of *Corn* states:

As described above, according to the inventive method, for each LDAP filter element or sub-expression, there is a set of entries (EIDs) that will satisfy the element. Thus, each element generally maps to a set of EIDs. The EID sets are then merged together, preferably into a single SQL query, using a set of combination rules. Thus, if a pair of LDAP filter elements are subject to an LDAP logical OR operator, the corresponding EID sets are merged using an SQL UNION logical operator. If a pair of LDAP filter elements are subject to an LDAP logical AND operator, the corresponding EID sets are merged using an SQL INTERSECT logical operator. If a pair of LDAP filter elements are subject to an LDAP logical NOT operator, the corresponding EID sets are merged using an SQL NOT IN logical operator. As will also be seen, these combination rules are applied recursively such that all LDAP elements associated with a particular logical operator are processed into the SQL query. This recursive processing facilitates handling of even complicated LDAP queries having numerous layers of logical depth.

Col. 7, ll. 39-58. Thus, *Corn* describes merging sets of EIDs “using a set of combination rules.” This portion of *Corn*, however, does not teach, suggest, or disclose “results associated with the one or more negative terms” or “results associated with the one or more positive terms” as recited in amended Claim 1. In addition, merely merging sets of EIDs, as described in *Corn*, does not teach, suggest, or disclose “collecting, *into a first list*, results associated with the one or more negative terms, and collecting, *into a second list*, results associated with the one or more positive terms” as recited in amended Claim 1. (Emphases added.) Because the cited references fail to teach, suggest, or disclose this aspect of amended Claim 1, the cited references fail to support the rejection.

Second, the cited references fail to teach, suggest, or disclose “omitting from the second list any results that are in the first list” as recited in amended Claim 1. In the Office Action, the Examiner relies on *Lohman* for this aspect of amended Claim 1. *Office Action*; p. 7. *Lohman* describes a method for parallel processing of subtasks associated with a query. Abstract; col. 1, ll. 42-59. The cited portion of *Lohman* describes duplicate elimination. Col. 5, ll. 30-33. Specifically, the cited portion states:

Duplicate elimination (distinct) can be thought of as a special case of aggregation (with no aggregating functions); therefore, all of the parallelization decisions just described for aggregation apply to duplicate elimination as well.

Col. 5, ll. 30-34. Thus, the cited portion of *Lohman* includes a cursory reference to “duplicate elimination.” Neither the cited portions of *Corn* or *Lohman* teach, suggest, or disclose the “first list” or the “second list” recited in amended Claim 1. Therefore, the cursory reference to “duplicate elimination” in *Lohman* does not teach, suggest, or disclose “omitting from the second list any results that are in the first list” as recited in amended Claim 1. Because the cited references fail to teach, suggest, or disclose this aspect of amended Claim 1, the cited references fail to support the rejection.

Third, the cited references fail to teach, suggest, or disclose “if the service query comprises a term having at least two NOT operators, deleting from the sum of terms a third-order term corresponding to the term having at least two NOT operators” as recited in amended Claim 31. In the Office Action, the Examiner relies on *Corn* for this aspect of amended Claim 31. *Office Action*; p. 17. In particular, the Examiner cites a flowchart (Figure 6B of *Corn*) as well as the description in *Corn* that pertains to the flowchart. *Corn*

explains that the flowchart illustrates an SQL generation algorithm. Col. 7, ll. 62-64. The cited portion of *Corn* states:

If the LDAP filter element includes neither AND nor OR, the routine continues at step 92 to determine whether the NOT logical operator is present. If so, the routine continues at step 94 to add the NOT IN logical operator to the SQL expression being generated. The routine then continues at step 96 to enter the recursive call so that all associated subexpressions may be parsed through the algorithm in the manner previously described. Thus, at step 98, a test is performed to determine whether all subexpressions associated with the NOT operator have been processed. If so, the routine returns at step 100; otherwise, the routine loops back to step 96 and processes the next subexpression.

Col. 8, ll. 40-50. Thus, the cited portion of *Corn* describes parsing subexpressions and, in some cases, adding the NOT IN logical operator to an SQL expression. This reference to parsing subexpressions, however, does not teach, suggest, or disclose “a term having at least two NOT operators” or “a third-order term corresponding to the term having at least two NOT operators” as recited in amended Claim 31. Furthermore, there is nothing in the cited portion of *Lohman* that teaches, suggests, or discloses “if the service query comprises a term having at least two NOT operators, *deleting from the sum of terms a third-order term* corresponding to the term having at least two NOT operators” as recited in amended Claim 31. (Emphasis added.) Because the cited references fail to teach, suggest, or disclose this aspect of amended Claim 31, the cited references fail to support the rejection. For at least the foregoing reasons, Applicant respectfully requests reconsideration and allowance of amended Claims 1 and 31.

In rejecting Claims 9, 14, and 22, the Examiner employs the same rational used to reject Claims 1 and 31. Accordingly, for analogous reasons to those stated above with respect to amended Claims 1 and 31, Applicant respectfully requests reconsideration and allowance of amended Claims 9, 14, and 22.

Claims 2-5, 10, 15-18, 23, and 27-30 depend from independent claims shown above to be allowable. In addition, these claims recite further elements that are not taught, suggested, or disclosed by the cited references. For at least these reasons, Applicant respectfully requests reconsideration and allowance of Claims 2-5, 10, 13-18, 23, and 27-30.

CONCLUSION

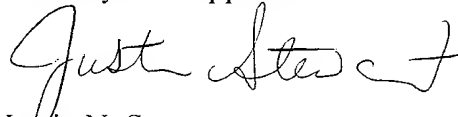
Applicant has made an earnest attempt to place this case in condition for allowance. For the foregoing reasons and for other reasons clearly apparent, Applicant respectfully requests reconsideration and full allowance of all pending claims.

If there are matters that can be discussed by telephone to further the prosecution of this Application, Applicant invites the Examiner to call the undersigned attorney at (214) 953-6755 at the Examiner's convenience.

The Commissioner is hereby authorized to charge the \$120.00 one month extension of time fee and to charge any deficiency or credit any overpayment to Deposit Account No. 02-0384 of Baker Botts L.L.P.

Respectfully submitted,

BAKER BOTTS L.L.P.
Attorneys for Applicant

A handwritten signature in cursive script, appearing to read "Justin N. Stewart".

Justin N. Stewart
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Date: January 11, 2008

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